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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,448	09/28/2004	Peter-Michael Merbach	5040.1002	7467
23280	7590	10/31/2007	EXAMINER	
DAVIDSON, DAVIDSON & KAPPEL, LLC			ABDELNOUR, AHMED F	
485 SEVENTH AVENUE, 14TH FLOOR				
NEW YORK, NY 10018			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/509,448	MERBACH ET AL.	
	Examiner	Art Unit	
	Farras Abdelnour	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 28 September 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 9-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 9-19 is/are rejected.
- 7) Claim(s) 14 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 28 September 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date August 29, 2005.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it is not on a separate sheet. Correction is required. See MPEP § 608.01(b).

Claim Objections - 37 CFR 1.75(d)(1)

2. The following is a quotation of 37 CFR 1.75(d)(1):

The claim or claims must conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description.

3. Claim 14 is objected to under 37 CFR 1.75(d)(1), as failing to conform to the invention as set forth in the remainder of the specification. The specification fails to explain or address "image sharpness" as a criterion for reaching desired position.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 recites the limitation "the observing," third line from the end of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 9-14, and 18-19 rejected under 35 U.S.C. 102(b) as being anticipated by Otahal *et al.* DE 101 23 561 A (Thales Comm, GmbH), translated document.

Regarding Claim 9, Otahal *et al.* discloses a method for touchless recognition of at least one biometric attribute of a body part comprising (“Akquirierung and analysis of a finger mark and the profile of the appropriate finger crest in three space dimensions for the person identification,” near end of page 1):

capturing a plurality of first optical images of the body part from a first point of view using a first imaging device (“the system is realized for the admission of the finger lower surface by two cameras, which are located to each other into such angle that a good compromise between dissolution of depth and lap range of the two fig., D. h.,” page 2, second paragraph);

capturing a plurality of second optical images of the body part from a second point of view using a second imaging device (“the system is realized for the admission of the finger lower surface by two cameras, which are located to each other into such angle that a good compromise between dissolution of depth and lap range of the two fig., D. h.,” page 2, second paragraph);

monitoring and/or checking at least one of an attitude and a position of the body part ("A wrong positioning of the finger can by the different perspectives be detected and the users if necessary be informed," page 2, second paragraph); and

correcting, where necessary, at least one of the plurality of first images and the plurality of second images with reference to the attitude or position using a shape of the body part, wherein at least one of the observing and correcting is performed using an interaction between the first and second imaging devices so as to determine a desired position, attitude and angle of rotation ("In a favorable further training of the invention a device is intended, which gives an assistance to

the user for the positioning of the finger in the way that the finger is presented on a trough-shaped document, whereby the situation and orientation of the finger are fixed to the camera system in relation. Thus the analysis of the finger crest is simplified and accelerated," page 2, second paragraph).

Regarding Claim 10, Otahal *et al.* discloses the method as recited in claim 9, wherein the body part is a finger ("The invention refers to a procedure for the automatic person identification using the finger crest, whereby both the structure of the so-called Papillarlinien on the finger crest and the three-dimensional, spatial profile of the finger crest are seized and analyzed," page 1, paragraph 1).

Regarding Claim 11, Otahal *et al.* discloses the method as recited in claim 10, wherein the at least one biometric attribute includes a finger line pattern ("The invention

refers to a procedure for the automatic person identification using the finger crest," page 1, paragraph 1).

Regarding Claim 12, Otahal *et al.* discloses the method as recited in claim 9, further comprising creating a spatial, three-dimensional profile of the body part ("The invention refers to a procedure for the automatic person identification using the finger crest, whereby both the structure of the so-called Papillarlinien on the finger crest and the three-dimensional, spatial profile of the finger crest are seized and analyzed," page 1, paragraph 1).

Regarding Claim 13, Otahal *et al.* discloses the method as recited in claim 12 wherein the three-dimensional profile includes a profile of a surface of the body part ("The procedure according to invention for the Akquirierung and analysis of a finger mark and the profile of the appropriate finger crest in three space dimensions for the person identification is characterized by a system, opinions of the finger crest from different view directions supplies and by it the reconstruction of the form of the surface of the finger crest in the three-dimensional area and the texture of this surface," bottom of page 1).

Regarding Claim 14, Otahal *et al.* discloses the method as recited in claim 9, wherein the image sharpness is used as a criterion for reaching the desired position ("The edition unit 8 serves the purpose to give and for the method of analysis the

localization of the finger 1 facilitate to the user an assistance concerning the positioning of the finger 1," page 3, second paragraph. Image sharpness is considered equivalent to localization analysis).

Regarding Claim 18, Otahal *et al.* discloses the method as recited in claim 11, wherein the finger and its shape are imaged and processed from the tip of the finger to at least beyond the adjacent joint and wherein at least one angle of the joint is used for the observing, the checking and/or the correcting of the images ("The position of the finger lower surface in relation to the cameras is selectable thereby freely by the user, as long as the finger crest, in particular the cutout of the finger lower surface from the fingertip to the first finger joint, in the field of vision of both cameras is and can the Papillarlinienstruktur by the cameras be dissolved. A wrong positioning of the finger can by the different perspectives be detected and the users if necessary be informed," page 2, second paragraph).

Regarding Claim 19, Otahal *et al.* discloses the method as recited in claim 11, further comprising using the fingernail surface visible from the different points of view for determining the degree of rotation ("the fact that them lie before the fingertip of the user and thus can take up the rotation and translation of the finger 1. These information can be used by the analysis system, in order to request the user, if it is necessary, for the correction of its finger position or to improve the analysis by the additional information over the degrees of the rotation of the finger," page 3, second paragraph from bottom).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 15-17 rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Otahal *et al.* as applied to claim 9, and Jain *et al.* (Jain, A.; Lin Hong; Bolle, R., "On-line fingerprint verification," *Pattern Analysis and Machine Intelligence, IEEE Transactions on*, vol.19, no.4, pp.302-314, Apr 1997).

Regarding Claim 15, Otahal *et al.* discloses a method for touchless recognition of Biometrics of a body part using two imaging devices, and image correction performed using images resulting from both imaging devices. Otahal *et al.* does not disclose applying a transformation to at least one biometric attribute to a predetermined attitude/position relative to a reference model.

Jain *et al.* teach applying a transformation of the at least one biometric attribute of the body part to a predetermined normal attitude and normal position of one of a reference model and a reference image using measured values of the position and/or the attitude ("Alignment stage, where transformations such as translation, rotation and scaling between an input and a template in the database are estimated and the input minutiae are aligned with the template minutiae according to the estimated

parameters," page 307, column 2).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to apply Jain's method of applying a transformation to an image relative to a template to Otahal's method of body part imaging using two imaging devices for the purpose of improving analysis using additional information.

Regarding Claim 16, Otahal *et al.* discloses the method as recited in claim 15, further comprising providing at least one of an optical and an acoustical feedback when a secure recognition is not possible despite the calculational transformation ("The distance 7 between the finger 1 and the cameras 2, 3, which can be kept to the correct analysis, must thereby in this special arrangement of the invention the user in an appropriate way z. B. in form of an optical or acoustic signal to be communicated," page 3, paragraph 1).

Regarding Claim 17, Otahal *et al.* discloses the method as recited in claim 16, wherein the feedback includes an indication of a type and direction of a change of attitude and/or position required for a secure recognition ("The distance 7 between the finger 1 and the cameras 2, 3, which can be kept to the correct analysis, must thereby in this special arrangement of the invention the user in an appropriate way z. B. in form of an optical or acoustic signal to be communicated," page 3, paragraph 1).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farris Abdelnour whose telephone number is 571-270-1806. The examiner can normally be reached on Mon. - Thurs. 7:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian P. Werner can be reached on 571-272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Farris Abdelnour
Examiner
Art Unit 2624

FA



BRIAN WERNER
SUPERVISORY PATENT EXAMINER